

Remarks

Claims 1-36 and 38-57 were pending in the subject application. Claims 1-36, 38-54, 56, and 57 remain pending but have been withdrawn from consideration. By this Amendment, claims 1-36 and 38-57 have been cancelled and new claims 58-87 have been added. Applicants respectfully assert that new claims 58-87 are drawn to the elected invention. Support for the new claims can be found throughout the subject specification including, for example, at pages 21-24, and in the claims as originally filed. Entry and consideration of the amendments presented herein is respectfully requested. Accordingly, claims 58-87 are currently before the Examiner for consideration. Favorable consideration of the pending claims is respectfully requested.

Submitted herewith is a supplemental Information Disclosure Statement (IDS), accompanied by the form PTO/SB/08. Applicants respectfully request that the references listed on the form PTO/SB/08 be considered and made of record in the subject application.

Claim 55 is rejected under 35 USC §112, first paragraph, as non-enabled by the subject specification. In one aspect of this rejection, the Examiner asserts that the claimed method requires the detection of something which is not present and the specification fails to disclose how to accomplish this. The Examiner asserts that it is impossible to detect something (in this case, a labeled nucleotide) that is not present. In another aspect of this rejection, the Examiner asserts that there is no correlation between the steps of the method and determining the sequence of the target polynucleotide. In yet a further aspect of this rejection, the Examiner questions aspects of the method, such as whether different nucleotides use different labels.

Applicants respectfully assert that claim 55 is enabled by the subject specification. However, as noted above, Applicants have cancelled claim 55 and added new claims 58-87. Claim 58 corresponds to cancelled claim 55 in subject matter and is drawn to the elected invention. Claim 58, and the claims dependent therefrom, recite a step of determining whether the labeled nucleotide is present within the extended primer by detection of the label. If the label is detected, the labeled nucleotide is present; if the label is not detected, then the labeled nucleotide is not present. A person of ordinary skill in the art would readily understand this to be the case. Claim 58 also recites that the detected presence of the labeled nucleotide is correlated to the sequence of the target polynucleotide.

A person of ordinary skill in the art would understand that the sequence of the target polynucleotide is correlated to the labeled nucleotide incorporated and detected in the extended primer. The nucleotide of the target polynucleotide paired to the labeled nucleotide incorporated in the primer is complementary to the labeled nucleotide. Thus, the labeled nucleotide incorporated in the extended primer can be correlated to the nucleotide of the target polynucleotide and, thus, the sequence of the target polynucleotide is determined. As described at page 10, lines 4-21, of the subject specification, all nucleotides can be labeled with the same label, or, alternatively, each of the different nucleotides can each be labeled with a different label. Either of the above labeling options can be used with the claimed sequencing method. Contrary to the Examiner's assertion, the specification is not silent as to how one is able to differentiate between the different labels that may be present at the same time. Accordingly, reconsideration and withdrawal of the rejection under 35 USC §112, first paragraph, is respectfully requested.

Claim 55 is rejected under 35 USC §101 on the grounds the claimed invention is inoperative and therefore lacks utility. The Examiner asserts that claim 55 "requires one to detect that which is 'absent'." Applicants respectfully assert that the method of claim 55 is operative and has utility. Applicants have discussed, in regard to the rejection under 35 USC §112, how a person of ordinary skill in the art can readily practice the method of new claims 58-87. A person can readily determine whether a labeled nucleotide has or has not been incorporated into the extended primer. The skilled artisan can thereby readily determine the nucleotide sequence of the target polynucleotide. Thus, Applicants respectfully assert that the claimed method is operative and satisfies the statutory requirement for utility. Accordingly, reconsideration and withdrawal of the rejection under 35 USC §101 is respectfully requested.

It should be understood that the amendments presented herein have been made solely to expedite prosecution of the subject application to completion and should not be construed as an indication of Applicants' agreement with or acquiescence in the Examiner's position.

In view of the foregoing remarks and amendments to the claims, Applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 CFR §§1.16 or 1.17 as required by this paper to Deposit Account 19-0065.

Applicants invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



Doran R. Pace  
Patent Attorney  
Registration No. 38,261  
Phone No.: 352-375-8100  
Fax No.: 352-372-5800  
Address: Saliwanchik, Lloyd & Saliwanchik  
A Professional Association  
P.O. Box 142950  
Gainesville, FL 32614-2950

DRP/mv

Attachments: Supplemental Information Disclosure Statement; Form PTO/SB/08